

EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTTTTTTTTTTTTTTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEEEEEEEEEEEEE	DDD	TTT
EEEEEEEEEEEEEE	DDD	TTT
EEEEEEEEEEEEEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEE	DDD	TTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTT
EEEEEEEEEEEEEEEE	DDDDDDDDDDDDDD	TTT

```

SSSSSSSS  CCCCCCCC  RRRRRRRR  IIIIII  NN  NN  SSSSSSSS  EEEEEEEEE  RRRRRRRR  TTTTTTTTTT
SSSSSSSS  CCCCCCCC  RRRRRRRR  IIIIII  NN  NN  SSSSSSSS  EEEEEEEEE  RRRRRRRR  TTTTTTTTTT
SS      CC  RR      RR      NN  NN  SS      EE      RR      TT
SS      CC  RR      RR      NN  NN  SS      EE      RR      TT
SS      CC  RR      RR      NNNN  NN  SS      EE      RR      TT
SS      CC  RRRRRRRR  RR      NN  NN  SS      EE      RRRRRRRR  TT
SSSSSS  CC  RRRRRRRR  RR      NN  NN  SSSSSS  EEEEEEEE  RRRRRRRR  TT
SSSSSS  CC  RR  RR      RR      NN  NN  SSSSSS  EEEEEEEE  RR  RR      TT
SS      CC  RR  RR      RR      NN  NN  SS      EE      RR  RR      TT
SS      CC  RR      RR      NN  NN  SS      EE      RR      TT
SS      CC  RR      RR      NN  NN  SS      EE      RR      TT
SSSSSSSS  CCCCCCCC  RR      RR      NN  NN  SSSSSSSS  EEEEEEEEE  RR      RR      TT
SSSSSSSS  CCCCCCCC  RR      RR      NN  NN  SSSSSSSS  EEEEEEEEE  RR      RR      TT

```

.....

.....

.....

.....

```

LL  IIIIII  SSSSSSSS
LL  IIIIII  SSSSSSSS
LL  II      SS
LL  II      SS
LL  II      SS
LL  II      SS
LL  II      SSSSSS
LL  II      SSSSSS
LL  II      SS
LL  II      SS
LL  II      SS
LL  II      SS
LLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLL  IIIIII  SSSSSSSS

```



```
0001 0 %TITLE 'EDT$SCRINSERT - insert a line on the screen'
0002 0 MODULE EDT$SCRINSERT (
0003 0 IDENT = 'V04-000'
0004 0 ) =
0005 1 BEGIN
0006 1
0007 1 *****
0008 1 *
0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0025 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0026 1 *
0027 1 *
0028 1 *****
0029 1
0030 1
0031 1 ++
0032 1 FACILITY: EDT -- The DEC Standard Editor
0033 1
0034 1 ABSTRACT:
0035 1
0036 1 This module updates the screen information vector to
0037 1 reflect the insertion of a line.
0038 1
0039 1 ENVIRONMENT: Runs at any access mode - AST reentrant
0040 1
0041 1 AUTHOR: Bob Kushlis, CREATION DATE: September 8, 1979
0042 1
0043 1 MODIFIED BY:
0044 1
0045 1 1-001 - Original. DJS 12-Feb-1981. This module was created by
0046 1 extracting the routine EDT$$$C INSLN from module SCREEN.
0047 1 1-002 - Regularize headers. JBS 13-Mar-1981
0048 1 1-003 - Repaint when a line is inserted above the top of the screen,
0049 1 but not when a line is inserted at the top of the screen.
0050 1 JBS 24-Sep-1981
0051 1 1-004 - Check a new flag for scrolling regions. JBS 31-Aug-1982
0052 1 1-005 - Modify for the new screen updater. SMB 17-Sep-1982
0053 1 1-006 - Modify to use new 48 bit macros. STS 01-Oct-1982
0054 1 1-007 - Take out references to L CUR SCRLN. SMB 04-Oct-1982
0055 1 1-008 - Reduce parameters to SC [NINS. SMB 06-Oct-1982
0056 1 1-009 - Change the way SC_FNDREC is used. SMB 08-Oct-1982
0057 1 1-010 - Change EDT$$G_SCR_CHGD to EDT$$G_SCR_REBUILD. JBS 09-Oct-1982
```

EDT\$SCRINSERT
V04-000

EDT\$SCRINSERT - insert a line on the screen

G 2
16-Sep-1984 01:35:13
14-Sep-1984 12:24:29

VAX-11 Bliss-32 V4.0-742
[EDT.SRC]SCRINSERT.BLI;1

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**F1

```
: 58      0058 1 | 1-011 - Set the current screen pointer when a line is inserted.  SMB 10-Oct-1982
: 59      0059 1 | 1-012 - Add support for NOTRUNCATE mode.  JBS 11-Oct-1982
: 60      0060 1 | 1-013 - Update L CUR SCRLN on insert.  SMB 13-Oct-1982
: 61      0061 1 | 1-014 - Don't rebuild the screen after deleting a line.  JBS 23-Oct-1982
: 62      0062 1 | 1-015 - Don't increment the record number if our record was replaced
: 63      0063 1 |      rather than inserted before.  JBS 25-Oct-1982
: 64      0064 1 | 1-016 - Check for replacing a multi-line record.  JBS 26-Oct-1982
: 65      0065 1 | 1-017 - Fix nottruncate bug on searching for deleted lines.  SMB 02-Dec-1982
: 66      0066 1 | 1-018 - Remove the edit buffer.  JBS 27-Dec-1982
: 67      0067 1 | 1-019 - Remove the unused reference to EDT$G_CS CHNO.  JBS 27-Dec-1982
: 68      0068 1 | 1-020 - Support EDT$G_ANY CHANGES.  JBS 05-Apr-1983
: 69      0069 1 | 1-021 - Worry about replacing the current line when the cursor is on
: 70      0070 1 |      a continuation line of it.  JBS 06-Jul-1983
: 71      0071 1 | 1-022 - Maintain EDT$G_CUR SCRLN even if the current line is outside of
: 72      0072 1 |      the screen data base.  JBS 25-Jul-1983
: 73      0073 1 | --
: 74      0074 1 |
```


EDT\$SCRINSERT
V04-000

EDT\$SCRINSERT - insert a line on the screen
Declarations

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[EDT.SRC]SCRINSERT.BLI;1

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```
: 76      0075 1 %SBTTL 'Declarations'
: 77      0076 1
: 78      0077 1  TABLE OF CONTENTS:
: 79      0078 1
: 80      0079 1
: 81      0080 1  REQUIRE 'EDTSRC:TRAROUNAM';
: 82      0519 1
: 83      0520 1  FORWARD ROUTINE
: 84      0521 1      EDT$SC_INSLN : NOVALUE;
: 85      0522 1
: 86      0523 1
: 87      0524 1  INCLUDE FILES:
: 88      0525 1
: 89      0526 1
: 90      0527 1  REQUIRE 'EDTSRC:EDTREQ';
: 91      0662 1
: 92      0663 1
: 93      0664 1  MACROS:
: 94      0665 1
: 95      0666 1      NONE
: 96      0667 1
: 97      0668 1  OWN STORAGE:
: 98      0669 1
: 99      0670 1      NONE
: 100     0671 1
: 101     0672 1  EXTERNAL REFERENCES:
: 102     0673 1
: 103     0674 1      In the routine
```

EDTSSCRINSERT
V04-000

EDTSSCRINSERT - insert a line on the screen
EDTSSC_INSLN - mark a line for insert

1 2
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[EDT.SRC]SCRINSERT.BLI;1

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```

105 0675 1 %SBTTL 'EDTSSC_INSLN - mark a line for insert'
106 0676 1
107 0677 1 GLOBAL ROUTINE EDTSSC_INSLN (
108 0678 1     REC_ADDR,
109 0679 1     REC_LEN
110 0680 1 ) : NOVALUE =
111 0681 1
112 0682 1 !++
113 0683 1 ! FUNCTIONAL DESCRIPTION:
114 0684 1
115 0685 1 !     A line has been inserted. Mark the line for insert in the screen
116 0686 1 !     information structure.
117 0687 1
118 0688 1 ! FORMAL PARAMETERS:
119 0689 1
120 0690 1 !     REC_ADDR           the address of the new line
121 0691 1
122 0692 1 !     REC_LEN            the length of the new line
123 0693 1
124 0694 1 ! IMPLICIT INPUTS:
125 0695 1
126 0696 1 !     EDTSSA_LN_PTR
127 0697 1 !     EDT$ST_LN_BUF
128 0698 1 !     EDTSSA_SCR_BUF
129 0699 1 !     EDTSSA_CUR_BUF
130 0700 1
131 0701 1 ! IMPLICIT OUTPUTS:
132 0702 1
133 0703 1 !     EDT$SL_CUR_SCRLN
134 0704 1 !     EDTSSA_CSR_SCRPTR
135 0705 1 !     EDT$SG_ANY_CHANGES
136 0706 1
137 0707 1 ! ROUTINE VALUE:
138 0708 1
139 0709 1 !     NONE
140 0710 1
141 0711 1 ! SIDE EFFECTS:
142 0712 1
143 0713 1 !     NONE
144 0714 1
145 0715 1 ! --
146 0716 1
147 0717 2 BEGIN
148 0718 2
149 0719 2 EXTERNAL ROUTINE
150 0720 2     EDTSSC_LNINS,
151 0721 2     EDTSSC_FNDREC;
152 0722 2
153 0723 2 EXTERNAL
154 0724 2     EDTSSA_LN_PTR,
155 0725 2     EDT$SL_CUR_SCRLN : LN_BLOCK,
156 0726 2     EDT$ST_LN_BUF,
157 0727 2     EDTSSA_CSR_SCRPTR : REF SCREEN_LINE,
158 0728 2     EDTSSA_SCR_BUF : REF TBCB_BLOCK,
159 0729 2     EDTSSA_CUR_BUF : REF TBCB_BLOCK,
160 0730 2     EDT$SG_ANY_CHANGES;
161 0731 2
```

! Mark a work file line for insert
! Address of new line
! Length of new line

! Insert a line into sceen structure
! Find a record in the data structure

! Current screen line
! Workfile line buffer
! Pointer to current line screen info
! Current screen block
! Current text buffer control block'
! 1 = a change has been mode to the screen data structure


```
162 0732 2 LOCAL
163 0733 2 CURSOR_LINE, | Relative cursor line
164 0734 2 CURSOR_POS, | Cursor position on the line
165 0735 2 SCRPTR: REF SCREEN_LINE, | Current line screen info
166 0736 2 CURSOR_DELETED, | 1 = the cursor line had been deleted
167 0737 2 DISP, | Displacement from cursor line
168 0738 2 SCRLN_POS; | Our position relative to the screen line
169 0739 2
170 0740 2
171 0741 2 + Only perform this routine if the current buffer is on the screen and the screen data structure exists.
172 0742 2 -
173 0743 2
174 0744 2 IF (.EDT$A_SCR_BUF NEQA .EDT$A_CUR_BUF) THEN RETURN;
175 0745 2
176 0746 2 +
177 0747 2 Compute our position relative to the screen line.
178 0748 2 -
179 0749 2 SCRLN_POS = CMPLNO (EDT$A_CUR_BUF [TBCB_CUR_LIN], EDT$L_CUR_SCRLN);
180 0750 2 +
181 0751 2 Get the pointer which corresponds to the current record. The insert will be just
182 0752 2 before that record.
183 0753 2 -
184 0754 2 SCRPTR = EDT$SC_FNDREC (.EDT$A_LN_PTR - EDT$T_LN_BUF, DISP);
185 0755 2 +
186 0756 2 We will do the insert above the current screen information block.
187 0757 2 If there is a deleted line before the current screen information block
188 0758 2 we will replace it. If that line is the cursor line, don't increment
189 0759 2 the record number of the cursor line.
190 0760 2 -
191 0761 2
192 0762 2 IF (.SCRPTR NEQA 0)
193 0763 2 THEN
194 0764 2 BEGIN
195 0765 2 +
196 0766 2 Tell the screen updater to search the screen data structure for any changes.
197 0767 2 -
198 0768 2 EDT$G_ANY_CHANGES = 1;
199 0769 2 +
200 0770 2 See if the cursor line has already been deleted.
201 0771 2 -
202 0772 2
203 0773 2 IF ((.EDT$A_CSR_SCRPTR [SCR_EDIT_FLAGS] AND SCR_EDIT_DELLN) NEQ 0)
204 0774 2 THEN
205 0775 2 CURSOR_DELETED = 1
206 0776 2 ELSE
207 0777 2 CURSOR_DELETED = 0;
208 0778 2
209 0779 2 +
210 0780 2 Now insert just before the current line.
211 0781 2 -
212 0782 2 EDT$SC_LNINS (.SCRPTR, .REC_ADDR, .REC_LEN);
213 0783 2 +
214 0784 2 If we just replaced the current screen line, don't increment it's record number.
215 0785 2 -
216 0786 2
217 0787 2 IF ( NOT (.CURSOR_DELETED AND ((.EDT$A_CSR_SCRPTR [SCR_EDIT_FLAGS] AND SCR_EDIT_DELLN) EQL 0)))
218 0788 2 THEN
```

```

219      0789      4      BEGIN
220      0790      4
221      0791      4      IF (.SCRLN_POS LEQ 0) THEN ADDLINE (NUMBER_ONE, EDT$$L_CUR_SCRLN);
222      0792      4
223      0793      4      END;
224      0794      4
225      0795      4      END
226      0796      4      ELSE
227      0797      4      !+
228      0798      4      If the line to be inserted is in the buffer being displayed on the screen but outside
229      0799      4      the screen data base we must still maintain EDT$$L_CUR_SCRLN.
230      0800      4      -
231      0801      4      BEGIN
232      0802      4
233      0803      4      IF (.SCRLN_POS LEQ 0) THEN ADDLINE (NUMBER_ONE, EDT$$L_CUR_SCRLN);
234      0804      4
235      0805      4      END;
236      0806      4
237      0807      4      END;

```

! of routine EDT\$\$\$SC_INSLN

.TITLE EDT\$SCRINSERT EDT\$SCRINSERT - insert a line on
the screen

.IDENT \V04-000\

```
.EXTRN  EDTSSC LNINS, EDTSSC FNDREC
.EXTRN  EDT$A_CN_PTR, EDT$A_CUR_SCR_LN
.EXTRN  EDT$T_LN_BUF, EDT$A_CSR_SCRPTR
.EXTRN  EDT$A_SCR_BUF, EDT$A_CUR_BUF
.EXTRN  EDT$G_ANY_CHANGES
```

```
.PSECT _EDT$CODE,NOWRT, SHR, PIC,2
```

```
.ENTRY EDTSSC_INSLN, Save R2,R3,R4,R5
MOVAB EDTSSA_CSR_SCRPTR, R5
```

MOVAB HIGH_2, R4

SUBL2 #4, SP

```

MOVLE    EDI,$$A_CUR_BUF, R0

```

CMPL EDT\$\$A_SCR_BUF, RO

BNEQ	10\$
------	------

MOVZWL HIGH 2, R1

CMPW 10(R0), R1

BLSSU

BNEQ

```

MOVLE LOW 2, R1
CMPL (R1), R1

```

CPL 6(R0), R1
R50H 28

BGEQU
MNECI

MNEGL #1, R2
RBR 48

BRB
BNEOBNEQ
CLPLCLRL
RDRBRB 45
NOVI #1 B2**MOVL
RUSHI**PUSHL SP
MOVAB EDI,ST IN RUF BO

MOVAB EDTSS\$ LN BUF, RO
SUBI 3 RO, EDTSS\$ LN, PTR - (SP)

SUBLS RO. EDISSA LN PIR,
CALLS #2 EDISSST ENDREC

7E 00000000G
00000000G

Address	Hex Data	ASCII Data
55	000000000G	00 003C 00000
54	000000000G	00 9E 00002
5E		04 C2 00010
50	000000000G	00 D0 00013
50	000000000G	00 D1 0001A
		7D 12 00021
51		64 3C 00023
51	0A	A0 B1 00026
		0C 1F 0002A
		15 12 0002C
51	FC	A4 D0 0002E
51	06	A0 D1 00032
		05 1E 00036
52		01 CE 00038 1\$:
		09 11 0003B
		04 12 0003D 2\$:
		52 D4 0003F
		03 11 00041
52		01 D0 00043 3\$:
		5E DD 00046 4\$:
50	000000000G	00 9E 00048
00		50 C3 0004F
00		02 FB 00057

0677
0744
0749
0754

EDT\$SCRINSERT
V04-000

EDT\$SCRINSERT - insert a line on the screen
EDT\$SSC_INSLN - mark a line for insert

L 2
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14-Sep-1984 12:24:29

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[EDT.SRC]SCRINSERT.BLI;1

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		00	50	D5	0005E	TSTL	SCRPTR	:	0762
		51	33	13	00060	BEQL	8\$:	
	00000000G		01	D0	00062	MOVL	#1, EDT\$SG_ANY_CHANGES	:	0768
05	0D	A1	65	D0	00069	MOVL	EDT\$SA_CSR_SCRPTR, R1	:	0773
		53	02	E1	0006C	BBC	#2, 13(R1); 5\$:	
			01	D0	00071	MOVL	#1, CURSOR_DELETED	:	0775
			02	11	00074	BRB	6\$:	
		7E	53	D4	00076	CLRL	CURSOR_DELETED	:	0777
			AC	7D	00078	MOVQ	REC_ADDR, -(SP)	:	0782
	00000000G	00	50	DD	0007C	PUSHL	SCRPTR	:	
		08	03	FB	0007E	CALLS	#3, EDT\$SSC_LNINS	:	
		50	53	E9	00085	BLBC	CURSOR_DELETED, 7\$:	0787
10	0D	A0	65	D0	00088	MOVL	EDT\$SA_CSR_SCRPTR, R0	:	
			02	E1	0008B	BBC	#2, 13(R0); 10\$:	
			52	D5	00090	TSTL	SCRPN_POS	:	0791
			05	15	00092	BLEQ	9\$:	
				04	00094	RET		:	
			52	D5	00095	TSTL	SCRPN_POS	:	0803
			07	14	00097	BGTR	10\$:	
			FC	A4	D6	INCL	FIRST_LWORD	:	
			02	12	0009C	BNEQ	10\$:	
			64	B6	0009E	INCW	NEXT_WORD	:	
			04	000A0	10\$:	RET		:	0807

; Routine Size: 161 bytes, Routine Base: _EDT\$CODE + 0000

: 238 0808 1
: 239 0809 1 !<BLF/PAGE>

EDT\$
V04-

Si
RU
Li
Me
Co

EDT\$SCRINSERT
V04-000

EDT\$SCRINSERT - insert a line on the screen
EDT\$SC_INSLN - mark a line for insert

M 2
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[EDT.SRC]SCRINSERT.BLI;1

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**FI

: 241 0810 1 END
: 242 0811 1
: 243 0812 0 ELUDOM

! of module EDT\$SCRINSERT

PSECT SUMMARY

:
: Name Bytes Attributes
: _EDT\$CODE 161 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

:
: File Total Symbols Loaded Percent Pages Mapped Processing Time
: _\$255\$DUA28:[EDT.SRC]EDT.L32;1 377 44 11 40 00:00.2
: _\$255\$DUA28:[EDT.SRC]PSECTS.L32;1 2 1 50 7 00:00.1

COMMAND QUALIFIERS

:
: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS\$:SCRINSERT/OBJ=OBJ\$:SCRINSERT MSRC\$:SCRINSERT.BLI/UPDATE=(ENH\$:S
: CRINSERT)

: Size: 161 code + 0 data bytes
: Run Time: 00:15.2
: Elapsed Time: 00:19.9
: Lines/CPU Min: 3205
: Lexemes/CPU-Min: 12635
: Memory Used: 114 pages
: Compilation Complete

0139 AH-BT13A-SE
VAX/VMS V4.0

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